

Claims

1 1. A method integrated calorie management, said method
2 comprising the steps of:

3 measuring a resting metabolic rate (RM) of a user;

4 utilizing the measured resting metabolic rate and user activity level over
5 a predetermined time interval to determine a total energy expenditure (TEE) of
6 the user;

7 determining a total calorie intake (TCI) value representing the person's
8 total calorie intake during the predetermined time interval;

9 determining from the total energy expenditure measurement and the
10 total calorie intake value a caloric balance (CB) for the user; and

11 using a rate of change of the measured resting metabolic rate to
12 determine when to remeasure the resting metabolic rate of the user.

1 2. A method as set forth in claim 1 wherein the rate of change of
2 the measured resting metabolic rate varies inversely with the frequency of
3 remeasuring the resting metabolic rate of the user.

1 3. The method according to claim 1, wherein the computed calorie
2 balance is displayed for the time interval on a computing device.

1 4. The method according to claim 1, wherein the comparisons of
2 the computed calorie balance to a predetermined target calorie balance is
3 displayed for the time interval on a computing device.

1 5. The method according to claim 4, wherein the displayed
2 comparisons also include a display indicating the trends of the computed
3 calorie balances with respect to said target calorie balance.

1 6. The method according to claim 1, wherein the resting metabolic
2 rate is measured by an indirect calorimeter which produces the resting
3 metabolism measurement by analyzing the difference in the contents of the gas
4 inhaled and exhaled by the user.

1 7. A method of integrated calorie management using a computing
2 device, said method comprising the steps of:
3 identifying a user using the computing device;
4 selecting a health target for the user using the computing device;
5 measuring food consumption by the user during a predetermined time
6 interval to determine a total calorie intake (TCI) of the user during the time
7 interval by the computing device;
8 measuring physical activity of the user during the time interval, wherein
9 the measured physical activity and a measured resting metabolic rate are used

10 to determine a total energy expenditure (TEE) of the user during the time
11 interval by the computing device;
12 determining from the total energy expenditure measurement and the
13 total calorie intake value a caloric balance (CB) for the user by the computing
14 device; and
15 using the caloric balance by the user to balance the user's caloric intake
16 with the user's physical activity to meet the health target.

1 8. A method according to claim 7 including the step of measuring
2 the resting metabolism (RM) of the user.

1 9. A method as set forth in claim 8 including the step of using a
2 rate of change of the measured resting metabolic rate to determine when to
3 remeasure the resting metabolic rate of the user.

1 10. A method according to claim 7, wherein the computed calorie
2 balance is displayed on a computing device.

1 11. A method according to claim 7, wherein the comparison of the
2 computed calorie balance to a predetermined target calorie balance is displayed
3 on a computing device.

1 12. The method according to claim 11, wherein the displayed
2 comparison also includes a display indicating a trend of the computed calorie
3 balance with respect to said target calorie balance.

1 13. The method according to claim 7 wherein said resting
2 metabolism is measured by an indirect calorimeter which determines the
3 resting metabolic rate measurement by analyzing the difference in the contents
4 of the gas inhaled and exhaled by the person.

1 14. The method according to claim 7, wherein said step of
2 identifying the user includes providing the user's height and weight.

1 15. The method according to claim 7, wherein said step of
2 providing a health target includes providing a target weight, or target nutrient
3 goal.

1 16. The method according to claim 7, wherein the computing device
2 provides information regarding targets and goals as part of a weight control
3 program.

1 17. The method according to claim 7, wherein the computing device
2 provides a nutritional value of the food intake by the user.

1 18. The method according to claim 7, wherein the user provides
2 physical activity information to determine the total energy expenditure
3 measurement.

1 19. The method according to claim 7, wherein the user is provided a
2 report of progress made during the time interval towards the target weight on
3 the computing device.

1 20. The method according to claim 19, wherein a level of progress
2 made during the time interval towards the target weight is represented on the
3 computing device by a progress-related icon.

1 21. A method as set forth in claim 7 including the step of
2 graphically providing the user on a display for the computing device an
3 indication of whether the calorie balance is progressing favorably or
4 unfavorably towards the health target.

1 22. The method according to claim 21, wherein the graphical
2 indication displayed includes a plurality of icons.

1 23. A system of integrated calorie management comprising:
2 a computer having a processor, a memory, a display and a user input
3 mechanism;

4 a method of integrated calorie management stored in said memory of
5 said computer system;

6 a user using the method of integrated calorie management stored in said
7 memory of said computer system to achieve a target health goal by providing a
8 total calorie intake (TCI) representing the user's total calorie intake during a
9 time interval, determining by the computer a total energy expenditure (TEE)
10 representing the total energy expenditure of the user during the time interval;
11 determining by the computer a resting metabolic rate for the user, wherein a
12 calorie balance (CB) value for the time interval is determined from the total
13 energy expenditure value and the total calorie intake value; and providing on
14 the display graphical indication of
15 the calorie balance for the time interval.

1 24. The system according to claim 23, wherein one icon is
2 displayed if the computed calorie balance for the time interval is favorable
3 towards achieving the target goal, and another icon is displayed if the
4 computed calorie balance for the time interval is unfavorable towards
5 achieving the target goal.

1 25. The system according to claim 23, wherein the target goal is a
2 target weight loss over a predetermined time period.

1 26. A system as set forth in claim 23 including an activity monitor
2 adapted to provide a signal correlated to the physical activity of the person to
3 the computer.

1 27. A system as set forth in claim 23 including an indirect
2 calorimeter to measure the resting metabolic rate of the user.

1 28. A system as set forth in claim 23 wherein the computer is a
2 handheld PDA.

1 29. A method of integrated calorie management using a computing
2 device, said method comprising the steps of:
3 identifying a user using the computing device;
4 selecting a health target for the user using the computing device;
5 providing measured food consumption during a predetermined time
6 interval by the user to the computing device;
7 using the food consumption by the computing device to determine a
8 total calorie intake (TCI) of the user during the time interval;
9 providing measured physical activity of the user during the time
10 interval to the computing device,
11 using by the computing device the measured physical activity and a
12 measured resting metabolic rate to determine a total energy expenditure (TEE)
13 of the user during the time interval;

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- 14 determining by the computing device a caloric balance for the user
- 15 during the time interval from the total energy expenditure measurement and the
- 16 total calorie intake; and
- 17 maintaining the calorie balance for the time interval in a balance log
- 18 stored in a memory of the computing device; and
- 19 using the balance log by the user with the health target.